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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/872,359

05/31/2001

John J. Light

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8554

20985

7590

01/15/2004

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EXAMINER

BONSHOCK, DENNIS G

ART UNIT

PAPER NUMBER

2173

DATE MAILED: 01/15/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,359

Applicant(s)

LIGHT ET AL.

Examiner

Dennis G Bonshock

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 3, 4, 6-9, and 17-24 are rejected under 35 U.S.C. 102(a) as being anticipated by Electronic Arts "Madden 2001", hereinafter EA.

3. With regard to claim 1, which teaches enabling a user to move an indicator that is constrained to a 2D surface rendered in a projection of 3D space on a display, where the 2D surface appears to lie obliquely to the display, EA teaches, in EFig 2 and manual page 15, that there is an indicator, symbolized by the blue sphere, that is constrained to a 2D surface, the field, which lies obliquely to the display. With regard to claim 1, further teaching that effecting an action in response to the user's control of the indicator, EA teaches, in EFig 2 and 3 and manual page 15, show the ability to select an object on the screen.

4. With regard to claim 3, which teaches the 2D surface comprising a plane, EA teaches, EFig 2, the 2D surfaces being a planar field.

5. With regard to claim 4, which teaches the display comprising rendering objects each having a position in the 3D space, EA teaches, in EFig 2 and 3, the ability to select an object.

6. With regard to claim 6, which teaches a display further comprising object markers, where the object marker corresponds to an object and being rendered on the 2D surface at a position associated with the location of the object, EA teaches, in EAfigs 2 and 3, the object being rendered by moving the selection sphere under the object, in a position represented by a shadow of the object.

7. With regard to claim 7, which teaches the action comprising altering the projection of the 3D space to indicate motion to the user, EA teaches, in EAfigs 4-6, the view of the object panning around the object in a clockwise motion (looking down on the object).

8. With regard to claim 8, which teaches the action comprising altering the projection of the 3D space to indicate to the user a change in viewpoint in the 3D space along a circular path, the center of which is on an axis perpendicular to the 2D surface at the position of the indicator, EA teaches, in EAfigs 4-6, the view of the object panning around the object in a clockwise motion (looking down on the object). This change in viewpoint is further realized by the translation of the background on the screen.

9. With regard to claim 9, which teaches the display comprising rendered topographic elements that orient the user's perception of the 3D space, EA teaches, in figures 4-6, the background and the planar field orienting the user in the interface.

10. With regard to claim 17, which teaches displaying a projection of a 3D space that comprises a 2D surface, a user selected object, and an indicator positioned on the surface at a position associated with the user-select object, the projection simulating a user's perspective from a first viewpoint, EA teaches, in EAfig 2 and manual page 15, a

projection of a 3D space that has a 2D plane, where a user selectable object casts a shadow on a point, in the plane where the object can be selected through use of the circular indicator. With regard to claim 17, further teaching receiving directional cues for the user with respect to the indicator, EA teaches on manual page 3 and in EAffig 2 a group of controls for giving direction cues to the indicator. With regard to claim 17, further teaching determining a second viewpoint based on the directional cue, EA teaches in EAffigs 2 and 3 and manual page 15, by altering the indicators position in the 2D space the representation of the 3D space on the screen is changed. With regard to claim 17, further teaching displaying a sequence of projections of the 3D space and a projection of the second viewpoint, the sequence simulating motion from the first viewpoint to the second viewpoint, EA teaches, in EAffigs 4-6 and manual page 15, the movement of the camera is a sequence of shots leading from the initial position of the destination position.

11. With regard to claim 18, which teaches the indicator positioned near or at a point on the surface through which an axis normal to the surface intersects the user selected object, EA teaches, in EAffigs 2 and 3 the user moving the indicator to an axis normal the surface of the object.

12. With regard to claim 19, which teaches the motion comprising motion that circumnavigates the user selected object, EA teaches, in EAffigs 4-6, the view of the object panning around the object in a clockwise motion (looking down on the object).

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13. With regard to claim 20, teaching that the second viewpoint includes the user-selected object, EA teaches, in EAfigs 4-6, the view of the object panning around the object in a clockwise motion, but the object remaining at the center of the display.

14. With regard to claim 21, which teaches the second viewpoint including the user-selected object at the same relative position in the projection of the second viewpoint as the position of the user-selected object in the projection of the first viewpoint, EA teaches, in EAfigs 4-6, the view of the object panning around the object in a clockwise motion, but the object remaining at the center of the display.

15. With regard to claim 22, which teaches a display unit that displays a rendering of a 3D space that comprises a 2D surface that appears to be oblique to the display unit, EA teaches, in EAfig 2, that there is an indicator, symbolized by the blue sphere, that is constrained to a 2D surface, the field, which lies obliquely to the display. With regard to claim 22, further teaching a memory unit that stores information about objects located in the 3D coordinate space and a user's viewpoint, a user interface configured to receive user controls for moving an indicator on a 2D surface, and a processor configured to render the 3D space from the stored information, EA teaches, on pages 2 and 3 of the manual, a system that comprises a memory unit (the game itself) that stores object location information, a user interface (the remote) configured to receive controls, and a processor used to compute the rendering of the 3D space, couple the controls of the controller to the controls as displayed in EAfig 2, and trigger a process based on the location of the indicator (see EAfigs 4-6).

16. With regard to claim 23, which teaches the second rendering restoring the indicator to a preferred position relative to the display unit, EA teaches, in EAfigs 4-8, that the indicator through the views remains fixed on the selected object, which resides in the center of the display.

17. With regard to claim 24, which teaches the process comprising selecting an object in the 3D space that is located near an axis that is normal to the 2D surface and that intersects the indicator, EA teaches, in EAfigs 2 and 3 the user moving the indicator near to an axis normal the surface of the object.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 2, 5, 10-16, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over EA and Robertson et al., Patent # 6,414,677, hereinafter Robertson.

20. With regard to claim 2, EA teaches the indicator used in a 2D plane as rejected above in the rejection to claim 1. EA, however, doesn't teach the user moving a second indicator on the display, the second indicator not being constrained to the 2D surface. Robertson teaches a 3D environment comprising objects similar to that of EA, but further teaches, in column 7, lines 3-11 and 30-37 and column 9, lines 56-64, the user selecting objects not only through a halo but also through the use of a cursor the can map 2D movements to a 3D display. It would have been obvious to one of ordinary skill

in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the alternate selection method of Robertson. One would have been motivated to make such a combination because this would allow for a more efficient selection of objects.

21. With regard to claim 5, EA teaches the indicator used in a 2D plane of a 3D space as rejected above in the rejection to claim 1. EA, however, doesn't teach the objects corresponding to usable files. Robertson teaches a 3D environment comprising objects similar to that of EA, but further teaches, in column 9, lines 12-25, the objects comprising various files, which can be opened, closed, or deleted. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the objects of EA to include files, as did Robertson. One would have been motivated to make such a combination because the file selection in this manner would be a convenient manner of file selection in a 3D interface.

22. With regard to claim 10, EA teaches rendering a first view of a 3D space from a first reference point, the 3D space comprising objects, a 2D surface, and a first indicator in the 2D surface (see Eafigs 2-9 and manual page 15). EA, however, doesn't teach the use of a second indicator movable in the view, and rendering a second view of the space as a function of the users control of the second indicator. Robertson teaches a 3D environment comprising objects similar to that of EA, but further teaches, in column 7, lines 3-11 and 30-37 and in column 4, lines 30-46, the user selecting an object through the user of the second indicator and the display being manipulated rendering a

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second view as a function of the selection. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the alternate selection and manipulation method as did Robertson. One would have been motivated to make such a combination because selection and manipulation in this manner would be a convenient manner of navigating the 3D interface.

23. With regard to claim 11, which teaches the movement of the second indicator being coupled to movement of the first indicator, Robertson teaches, in column 7, lines 3-11 and 30-37, and object being circled by the halo in response to a selection by the cursor. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the coupled second selection method as did Robertson. One would have been motivated to make such a combination because selection and manipulation in this manner would be a convenient manner of navigating the 3D interface.

24. With regard to claim 12, which teaches the second rendering restoring the indicator to a preferred position relative to the display unit, EA teaches, in EAfigs 4-8, that the indicator through the views remains fixed on the selected object, which resides in the center of the display.

25. With regard to claim 13, which teaches the second indicator specifying a selected point in the first view of the 3D space and the second view relocating the first the first indicator to a position on the 2D surface that is associated with the selected point,

Robertson teaches, in column 7, lines 3-11 and 30-37, and object being circled by the halo in response to a selection by the cursor. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the coupled second selection method as did Robertson. One would have been motivated to make such a combination because selection and manipulation in this manner would be a convenient manner of navigating the 3D interface.

26. With regard to claim 14, which teaches the position associated with the selected point being on the 2D surface and being intersected by a line normal to the 2D surface through the selected point, EA teaches, in EAfigs 2 and 3 the user moving the indicator near to an axis normal the surface of the object.

27. With regard to claim 15, which teaches the second view from a second reference point being closer to the first indicator than the first reference point, EA teaches, in figures 6 and 7, and through the use of the square and circle buttons the zooming in and out on an object.

28. With regard to claim 16, which teaches the second view being from the first reference point, Robertson further teaches, in column 10, lines 6-15, the user using head movements to "look around" an environment that is capable of panning (see column 5, lines 15 and 16). It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the 3D environment viewing method of EA to include the ability to look around from a fixed point in the space.

29. With regard to claim 25, which teaches an article comprising a machine-readable medium that stores machine executable instructions, causing the machine to: render a first view of a 3D space from a first reference point, the 3D space comprising objects, a 2D surface, and a first indicator in the 2D surface (see EAfigs 2-9 and manual page 15). EA, however, doesn't teach the use of a second indicator movable in the view, and rendering a second view of the space as a function of the users control of the second indicator. Robertson teaches a 3D environment comprising objects similar to that of EA, but further teaches, in column 7, lines 3-11 and 30-37 and in column 4, lines 30-46, the user selecting an object through the user of the second indicator and the display being manipulated rendering a second view as a function of the selection. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the alternate selection and manipulation method as did Robertson. One would have been motivated to make such a combination because selection and manipulation in this manner would be a convenient manner of navigating the 3D interface.

30. With regard to claim 26, which teaches the movement of the first indicator being coupled to movement of the second indicator, Robertson teaches, in column 7, lines 3-11 and 30-37, and object being circled by the halo in response to a selection by the cursor. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the coupled second selection method as did Robertson. One would have been motivated to make such a combination because

selection and manipulation in this manner would be a convenient manner of navigating the 3D interface.

31. With regard to claim 27, which teaches the second rendering restoring the indicator to a preferred position relative to the display unit, EA teaches, in EAfigs 4-8, that the indicator through the views remains fixed on the selected object, which resides in the center of the display.

32. With regard to claim 28, which teaches the second representation enhancing representation of the object located at the position associated with the selected point being on the 2D surface and being intersected by a line normal to the 2D surface through the selected point, EA teaches, in EAfigs 2 and 3, two different view where the user moves the indicator near to an axis normal the surface of the object. As far as enhancing the representation of the object, EA teaches, in EAfigs 6 and 7, and through the use of the square and circle buttons, the zooming in and out on an object.

33. With regard to claim 29, which teaches the user's control of the second indicator specifying a selected object from the objects in the space, and the second projection comprising the first indicator located on the 2D surface at a position associated with the selected object. Robertson teaches, in column 7, lines 3-11 and 30-37, and object being circled by the halo in response to a selection by the cursor. It would have been obvious to one of ordinary skill in the art, having the teachings of EA and Robertson before him at the time the invention was made to modify the selection method of EA to include the coupled second selection method as did Robertson. One would have been

motivated to make such a combination because selection and manipulation in this manner would be a convenient manner of navigating the 3D interface.

Conclusion

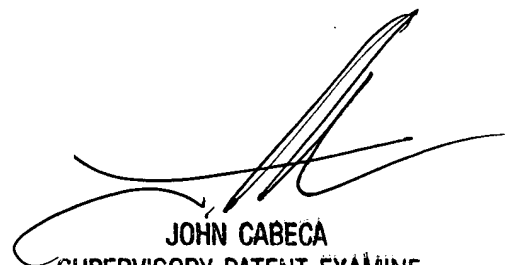
34. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach means for selecting objects in a 3D environment that contains a 2D plane.

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis G Bonshock whose telephone number is (703) 305-4668. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

37. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

dgb



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